What is Claimed is:

1. A system for packaging products, comprising:

a series of carriers each adapted to receive at least one product therein;

an inserter unit that receives and moves the carriers in spaced series along a path of travel for packaging, and which includes a series of inserter assemblies adapted to engage and urge the products out of the carriers; and

a carton transport conveyor moving a series of cartons in timed relationship with the movement of the carriers along their path of travel such that the products are received within the cartons as the products are urged out of the carriers by the inserter assemblies.

2. The system of claim 1 and further comprising a funnel conveyor positioned between the inserter unit and the carton transport conveyor and having a series of funnels mounted therealong for guiding the products into the cartons of the carton transport conveyor.

3. The system of claim 1 and wherein the carton transport conveyor includes a series of spaced carton locator devices.

4. The system of claim 1 and further comprising one or more carrier conveyors along which the carriers are loaded with products and are conveyed to the inserter unit.

5. The system of claim 4 and wherein the inserter unit further includes a guide track adapted to be engaged by the carriers as they move along their path of travel for merging the carriers into a single line of carriers moving through the inserter unit.

6. The system of claim 4 and further comprising at least one selector unit positioned along the path of travel of the carriers upstream from the inserter unit for metering multiple lines of carriers being fed into the inserter unit.

7. The system of claim 1 and wherein the inserter assemblies each comprises an inserter rod slideably mounted to a support and moveable from at retracted, non-engaging position into an extended, engaging position for urging the products out of their carriers.

8. The system of claim 1 and further comprising a cam follower mounted to each inserter rod and engaging a cam track for moving each inserter rod between its engaging and non-engaging positions.

9. The system of claim 1 and wherein each carrier comprises a pair of opposed side plates hingedly attached so as to be pivotable toward an open position for receiving products therewithin.

10. The system of claim 1 and further comprising a carrier conveyor having loading station at an upstream end thereof wherein a series of products from at least one product transport line are received and loaded into each carrier.

11. The system of claim 10 and wherein the loading station receives products from multiple product transport lines which alternatively feed products into each carrier.

12. The system of claim 10 and further comprising a plurality of carrier conveyors each having a loading station adapted to receive and load products from one of a series of product transport lines into the carrier s of each carrier conveyor, and a selection station from the plurality of carrier conveyors into the inserter unit in alternating series.

13. The system of claim 12 and wherein the carriers each include a pair of opposed side plates pivotally connected and which have an asymmetric feature to enable each carrier to be directed and feed back to a desired one of the carrier conveyors.

14. A method of packaging products in cartons of varying sizes, comprising:

placing the products in a series of carriers;

feeding the carriers into an inserter unit;

moving a series of inserter assemblies in timed relation with the carriers moving along their path of travel through the inserter unit;

moving the cartons along a path substantially parallel to and in registration with the carriers; and

engaging and urging the products out of the carriers and into the cartons for packaging.

15. The method of claim 14 and wherein feeding the carriers into an inserter unit comprises selecting and metering multiple lines of carriers into a single line of carriers moving through the inserter unit.

16. The method of claim 14 and wherein placing the products in carriers comprises loading a least one product into each carrier with the product oriented substantially horizontally.

17. The method of claim 16 and further comprising loading a second product within each carrier, with the products positioned in a stacked, substantially parallel arrangement.

18. The method of claim 14 and wherein placing the products within the carriers comprises opening the carriers for receiving the products therein, and placing a series of products within the carriers in a stacked arrangement.

19. The method of claim 14 and further comprising moving the products through funnels as the products are urged out of their carriers, and guiding groups of stacked products into each carton.

20. The method of claim 14 and wherein moving the cartons along their path further comprises guiding the cartons toward the carriers from an outer location spaced from the path of travel of the carriers to an inner location adjacent the carriers.

21. The method of claim 14 and further comprising feeding a series of products from multiple different product transport lines to the carriers of a plurality of carrier conveyors.

22. The method of claim 21 and wherein feeding the carriers into the inserter unit comprises moving the carriers of the plurality of carrier conveyors through a selector station, and alternatively feeding carriers from each carrier conveyor into the inserter unit and merging the carriers into a single line of carriers moving through the inserter unit.

23. The method of claim 14 and wherein placing the products in the carriers comprises loading at least one product in each carrier from a loading conveyor and moving the carriers away from the loading conveyor at a higher rate than the products are moved along the loading conveyor.

24. In a system for packaging a series of irregularly shaped products in cartons, the improvement comprising:

a series of carriers moveable along a carrier conveyor between an upstream position at which the products are received in stacked series within a pocket of each of said carriers and a downstream position for unloading the products from said carriers into the cartons; and

said carriers each comprising a pair of opposed side walls defining a product receiving pocket therein of a sufficient size to receive a series of products in stacked arrangement.

25. The system of claim 24 and wherein each of the said carriers includes an asymmetric feature along one of said sidewalls to guide the products into their stacked arrangement.

26. The system of claim 24 and wherein said carriers each comprise a pair of opposed plates each including an upper wall and a base portion and wherein said base portions of said plates are pivotally connected by a hinge pin.

27. The system of claim 26, wherein said carriers further include actuation pins extending through said base portions thereof, and said carrier conveyor includes a loading station at its upstream portion having a loading sprocket about which said carriers are passed, wherein as said actuation pins and said hinge pins of each carrier engage said loading

sprocket, said plates are caused to pivot away from each other so as to expand said pocket as the products are loaded therein.

28. The system of claim 24 and further comprising an inserter unit adjacent said downstream end of said carrier conveyor and having a plurality of inserter assemblies, wherein as said carriers are received and move through said inserter unit, said inserter assemblies engage and urge the products within each of said carriers into a corresponding carton.

29. The system of claim 24 and wherein said carrier conveyor includes guide rails and said carriers each include channels adapted to receive said guide rails therein.